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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/515,314	02/29/2000	Kelli E. Prince	2470-007	2031
25264	7590 05/14/2003			
	INOLOGY INC	EXAMINER		
PO BOX 674412 HOUSTON, TX 77267-4412			GRIFFIN, WALTER DEAN	
			ART UNIT	PAPER NUMBER
			1764	"
			DATE MAILED: 05/14/2003	

Please find below and/or attached an Office communication concerning this application or proceeding.

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	Application No.	Applicant(s)				
	09/515,314	PRINCE ET AL.				
Office Action Summary	Examin r	Art Unit				
	Walter D. Griffin	1764				
The MAILING DATE of this communication app Period for Reply	ears on the cover shet with the	correspond nce address				
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication. - If the period for reply specified above is less than thirty (30) days, a reply If NO period for reply is specified above, the maximum statutory period w Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). Status	36(a). In no event, however, may a reply be tin within the statutory minimum of thirty (30) day rill apply and will expire SIX (6) MONTHS from cause the application to become ABANDONE	nely filed s will be considered timely. the mailing date of this communication. D (35 U.S.C. § 133).				
1) Responsive to communication(s) filed on <u>26 March 2003</u> .						
2a) ☐ This action is FINAL . 2b) ☑ Thi	This action is FINAL . 2b)⊠ This action is non-final.					
3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213. Disposition of Claims						
4) ☐ Claim(s) 1-8 is/are pending in the application.						
4a) Of the above claim(s) <u>1-3,7 and 8</u> is/are withdrawn from consideration.						
5) Claim(s) is/are allowed.						
6)⊠ Claim(s) <u>4-6</u> is/are rejected.						
7) ☐ Claim(s) is/are objected to.						
8) Claim(s) are subject to restriction and/or election requirement.						
Application Papers	olookon roquirolliona					
9) The specification is objected to by the Examiner.						
10) ☐ The drawing(s) filed on is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.						
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).						
11)☐ The proposed drawing correction filed on is: a)☐ approved b)☐ disapproved by the Examiner.						
If approved, corrected drawings are required in reply to this Office action.						
12)☐ The oath or declaration is objected to by the Examiner.						
Priority under 35 U.S.C. §§ 119 and 120						
13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).						
a) ☐ All b) ☐ Some * c) ☐ None of:						
1. Certified copies of the priority documents have been received.						
2. Certified copies of the priority documents	s have been received in Applicati	on No				
3. Copies of the certified copies of the prior application from the International But* See the attached detailed Office action for a list	reau (PCT Rule 17.2(a)).	-				
14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).						
a) ☐ The translation of the foreign language provisional application has been received. 15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.						
Attachment(s)						

U.S. Patent and Trademark Office PTO-326 (Rev. 04-01)

Notice of References Cited (PTO-892)
 Notice of Draftsperson's Patent Drawing Review (PTO-948)
 Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>4 & 6</u>.

6) Other:

4) Interview Summary (PTO-413) Paper No(s). _____ 5) Notice of Informal Patent Application (PTO-152)

DETAILED ACTION

Election/Restrictions

Applicant's election with traverse of claims 4-6 in Group IIA in Paper No. 9 is acknowledged. The traversal is on the ground(s) that the claims of each group are related in that each group of claims is directed to a means of improving fluid flow uniformity in a particular type of reactor. This is not found persuasive because applicants have not shown that the alternative use for the apparatus proposed by the examiner is not feasible.

The requirement is still deemed proper and is therefore made FINAL.

Claims 1-3, 7, and 8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in Paper No. 9.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 4-6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 4-6 are indefinite because the expressions "the displacement reactor" in line 6 of claim 4 and "the displacement cylinder" in line 8 of claim 4 lack proper antecedent basis. In line 2 of claim 4, the feature is referenced as a "displacement vessel". It is unclear if the expressions

in lines 6 and 8 of claim 4 refer to the displacement vessel. The examiner recommends that applicants use consistent language in claim 4. Note that the expression "displacement cylinder" is used in both claim 5 and 6.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

- 1. Determining the scope and contents of the prior art.
- 2. Ascertaining the differences between the prior art and the claims at issue.
- 3. Resolving the level of ordinary skill in the pertinent art.
- 4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over DE 2306516.

The DE 2306516 reference discloses a process for using an apparatus that contains the same features as in the claims. Additional bodies (i.e., baffles) are added to the displacement

body located within the reactor. These bodies adjust the irregularities in the gas flow through the reactor. See the entire document.

The DE 2306516 reference does not disclose conducting the flow simulations and adding baffles to improve the simulated flow. The reference also does not disclose that three baffles are added to the top half of the displacement cylinder without disassembly of the reactor or catalyst bed and does not disclose that the baffles extend into the reaction vessel by a distance not greater than half the distance to the catalyst bed.

It would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of the DE 2306516 reference by adding the baffles based on flow simulations because one would add the baffles for the desired purpose of adjusting the irregularities in the gas flow through the reactor. One would have to determine the irregularities based on experiments.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of the DE 2306516 reference by adding any number of baffles that provide the desired effect and adding them without disassembly of the reactor or catalyst bed because the baffles are added to the displacement body and, as such, disassembly would not be required.

It also would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the process of the DE 2306516 reference by utilizing baffles that extend into the reaction vessel by a distance not greater than half the distance to the catalyst bed because one would utilize any size of baffle that provides the desired effect of adjusting the irregularities in the gas flow through the reactor.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Walter D. Griffin whose telephone number is 703-305-3774. The examiner can normally be reached on Monday-Friday 6:30 to 4:00 with alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on 703-308-6824. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Walter D. Griffin Primary Examiner Art Unit 1764

Walt D. Duff

WG May 12, 2003